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GRADES FOR
FEEDER CATTLE

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Cover Page

Operators of cattle feedlots such as the one on this month's cover can now buy feeder stock on the basis of official U. S. grade standards. The U. S. Department of Agriculture adopted official standards for seven grades of feeder animals, effective September 25. The new standards are closely correlated with the official standards for slaughter cattle and beef carcasses, providing uniform grade terminology from the feeder animal—the "raw material" of the beef industry—to the finished product. See page 11.

Editor, JAMES A. HORTON

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Better Aeration of Stored Cottonseed

WIDE differences in effectiveness of cottonseed aeration at commercial warehouses have been confirmed in recent tests by marketing researchers in the U. S. Department of Agriculture. They found that operators of aeration systems often circulate too little air through the seed because information needed for efficient aeration of stored cottonseed is lacking.

Engineers in USDA's Agricultural Research Service are now testing improvements that may enable warehouses to aerate stored seed more effectively and at lower cost. Tests will provide information on the best locations for ducts, size of motor, kind of fan, and other factors affecting aeration of cottonseed. The Mississippi Agricultural Experiment Station is cooperating in the tests.

Preliminary tests made by research engineer Loyd L. Smith at commercial warehouses showed that even when fans were driven by powerful motors they might not circulate enough air through the seed. Often, circulation of air through the seed was inadequate because fans and ducts were improperly designed.

At some warehouses, from 25 to 75 percent of the power was used to force air through the ducts. Researchers say that only 10 percent of the power output should be needed to circulate air through ducts, leaving 90 percent to circulate air through the seed itself.

Less power is required to move air

through efficiently-designed ducts. At one commercial storage facility, a 40-horsepower motor was replaced by a 10-hp. motor when the aeration system was improved during the course of the researchers' tests.

With the improved system, the 10-hp. motor moved more air through more cottonseed than did the original system. The smaller motor aerated 48,000 cubic feet of seed, with an air movement of 3,380 cubic feet per minute. The larger motor used in the former system aerated 32,000 cubic feet of seed, with an air movement of only 2,140 cubic feet per minute.

High friction losses in the duct system reduced circulation of air through the seed. Much of the friction was created by high-velocity air moving through under-sized ducts and supply pipes connecting the ducts to the fan.

At one warehouse the air was circulated through seed surrounding the duct at a velocity of 300 feet per minute, or at least 15 times that recommended. With ducts having a larger surface area, air-flow through seed surrounding the duct could be cut to 10 to 30 feet per minute, thereby reducing friction.

Lower velocities reduce friction losses enough to permit use of smaller motors. And lower operating costs with the smaller motors can more than offset the additional cost of larger ducts.

Researchers recommend a velocity of 1,500 feet per minute in supply pipes. However, rates as high as 2,500 feet

per minute could be used without severe friction losses to circulate air.

Researchers are using the main tunnel as a substitute for supply pipes in current tests to provide desirable air velocities. The tunnels, large enough for a man to walk through, are connected to a series of ducts more than twice as large as conventional ducts. The ducts are made of hardware cloth nailed to slatted wood frames.

In initial tests with the improved aeration system, the cottonseed temperature was reduced some 30 degrees in about 90 days — a good record for any aeration system. With this temperature reduction, there was no loss in germination of seed during the storage period.

Initial cottonseed temperature ranged from 85° to 95° F. Three months later, in December, the temperature ranged from 47° to 63° F. During the first month, the aeration system ran intermittently, at the warehouse operator's discretion. During the next two months it was put on automatic operation.

In future tests, researchers hope to learn what differences there are in air circulation through cottonseed lots containing different amounts of lint and foreign material. They also will study differences in air circulation through various depths of seed.

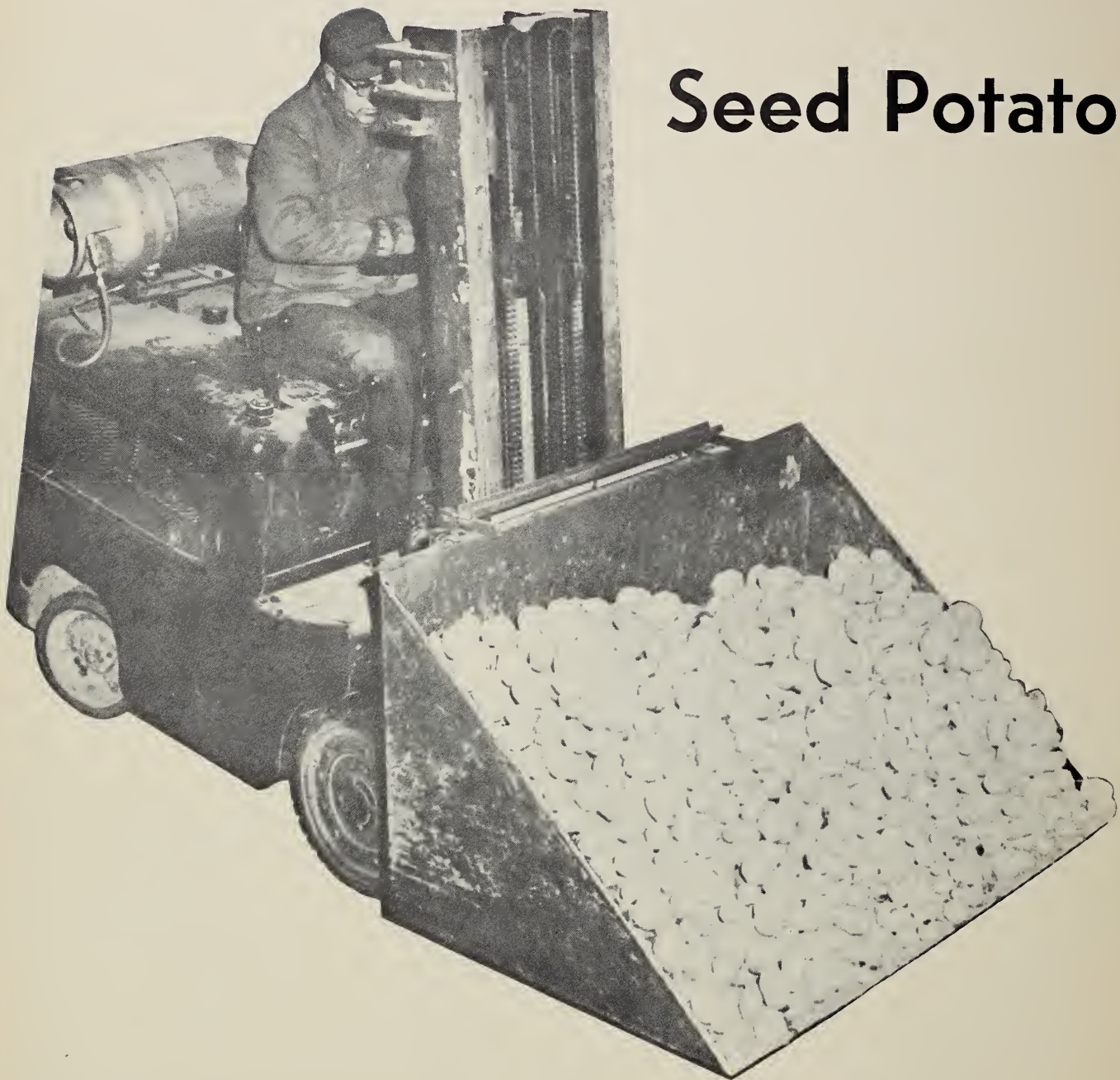
On the basis of these tests, further refinements may be made in the improved aeration system. A report will be issued after tests are completed.



At left, more air is sucked through framed ducts onto which cottonseed is poured. Ducts below are too small.



Mechanized Handling of Seed Potatoes



A FORKLIFT truck equipped with a special scoop and a metal "skirt" has been used to move bulk seed potatoes efficiently and with little damage to them in Maine tests. The equipment is a big improvement over the slow, back-breaking hand forks used to move most seed potatoes today.

Although flumes systems have come into use for table stock potatoes, many potatoes are still moved by hand labor. The mechanized scoop method would put an end to most of the drudgery of moving these potatoes out of storage.

The equipment was designed by James H. Hunter and John C. Thibodeau of the Maine Agricultural Experiment Station and tested in cooperation with the U. S. Department of Agriculture, as a part of its marketing research.

Tests made by Jack B. Wilson of USDA's Agricultural Research Service show that the Maine truck-scoop method moves potatoes from storage bins with no more injuries than to potatoes moved by hand forks.

Several construction features of the experimental equipment keep injuries to a minimum. Steel tubing covering sharp edges of the scoop shields potatoes from possible cuts. To prevent the scoop's leading edge from cutting potatoes, the scoop is mounted so that the blade rests on the floor as it's pushed into a pile of potatoes in a storage bin. When the scoop is withdrawn, it tilts back to prevent spillage and bruising.

After initial tests, a metal skirt was mounted around the lower portion of the truck to prevent potatoes from rolling under the wheels.

The truck and scoop are more maneuverable in close quarters and provide better visibility for the operator than earlier truck-handling methods tested by others. Inability to see the scoop easily, and tight cornering in indoor locations were major drawbacks of earlier trucks.

The scoop was built to hold a half-ton of potatoes. Constructed of $\frac{1}{4}$ -inch thick steel, its blade is $3\frac{1}{2}$ feet wide and its back is $2\frac{1}{2}$ feet high. A scoop of this size can easily maneuver in bins with a 9-foot width.

The scoop cost \$150, plus labor. Estimated operating costs for the scoop and truck are as low as \$11 per carload of potatoes, about the same as the cost of using a flume system.

In many cases, the truck and scoop may be more economical than a bin-



This specially designed forklift truck with its mechanized scoop metal "skirt" can load a railcar with potatoes from a storage bin in just $1\frac{1}{2}$ hours, a big improvement over the slow, back-breaking hand forks used to move most seed potatoes today. Costing \$150 plus labor, the scoop holds a half-ton of potatoes. It is constructed of $\frac{1}{4}$ -inch-thick steel with a $3\frac{1}{2}$ -foot-wide blade and a $2\frac{1}{2}$ -foot-high back. Another advantage: its driver is seated forward, can easily see scoop.

unloader conveyor system, which costs from \$11 to \$20 per carload. Unlike the conveyor system, little hand labor is required and the truck can be used for a large number of other handling operations, such as moving palletized loads in storage. Only a small part of the cost of a forklift truck would be charged against moving potatoes from storage bins to packing lines.

One man operating the truck-scoop can do the work formerly requiring three or more men to move potatoes using hand forks. An estimated 230 to 430 hundredweight of potatoes can be moved per hour with the truck, depending on the distance it must travel.

When potatoes are dumped in a hopper right by the bin, the truck can move up to 430 cwt. per hour. An

estimated 230 cwt. per hour can be handled if the truck travels as far as 200 feet before dumping the potatoes.

A railcar could be loaded in only 3 hours, if the truck carried 230 cwt. per hour from storage bins to the packing line. And only $1\frac{1}{2}$ hours are required to fill a car if the truck moves 430 cwt. per hour. These estimated figures apply to railcars with a capacity of 50,000 pounds.

The scoop was tested on an industrial forklift truck. L. P. gas was used for fuel, to reduce toxic fumes in indoor locations.

Construction and operating details will be given in a forthcoming Miscellaneous Publication of the Maine Agricultural Experiment Station, Orono, Maine.

Modified Atmospheres for Fresh Produce Shipments

RECENTLY a new mechanically refrigerated railcar loaded with California asparagus was shipped to New York. When it arrived, an inspector, starting to enter the car, noticed that the flame in his lantern went out, and he was left gasping for breath. Most of the oxygen in the car had been used up by the asparagus during the trip and replaced by carbon dioxide. The car was so tightly constructed that air entering it did not replace the carbon dioxide produced by the asparagus.

High levels of carbon dioxide obviously do an inspector no good, but the U. S. Department of Agriculture's marketing research has shown that atmospheres with higher than normal levels of CO₂—or atmospheres modified in some other ways—can be beneficial to some produce in shipment.

The asparagus in the California-to-New York shipment, for example, may have arrived in better condition than it would have in a well-ventilated car. Replacement of oxygen by carbon dioxide is sometimes beneficial to asparagus, according to tests made by USDA's Agricultural Research Service. Carbon dioxide, in small concentrations, retards development of bacterial soft rot, and enhances the bright green color of the spears when they are cooked.

Researchers have held fresh asparagus in good condition at 37° to 43° F. in atmospheres having a carbon dioxide content as high as 10 percent and an oxygen content as low as 5 percent. Higher carbon dioxide concentrations have been used with good results, too, but best results were obtained when the carbon dioxide content did not exceed 10 percent.

Carbon dioxide concentrations had little, if any, effect on destruction of Vitamin C in asparagus. Although losses of this vitamin resulted in some

tests by other scientists, the losses appear to have been caused by high temperatures rather than by high carbon dioxide concentrations. Reduction of oxygen concentrations helped prevent losses of Vitamin C.

Carbon dioxide's ability to reduce decay of asparagus is more noticeable after—rather than during—refrigerated storage. This is because soft rot develops slowly at low temperatures.

Commercial refrigerated transit and retail display intervals were approximated in tests with carbon dioxide. Asparagus appeared to be in good condition during 7 days' storage at about 37° F. in both normal air and in controlled atmospheres with high concentrations of carbon dioxide. But after the asparagus was held in air for 2 days at about 60° F., only the asparagus previously held in the atmospheres enriched with carbon dioxide in excess of 5 percent was marketable.

Although modified atmospheres appear to be a promising way of keeping many kinds of produce in fresh condition for longer periods than is now possible, there still are many unanswered questions. For example, modified atmospheres that benefit one

commodity may be of little help or even harmful to other commodities.

Scientists have found that high carbon dioxide concentrations in the air seriously reduce the quality of lettuce. However, low oxygen atmospheres free of carbon dioxide maintained lettuce in good condition at 33° F.

Successful results with the lettuce were obtained in small-scale laboratory tests at 33°, but effective low concentrations of oxygen and commodity temperatures below 36° would be difficult to maintain under commercial shipping conditions.

Scientists are making further tests to determine the effects of various modified atmospheres on a number of fresh fruits, vegetables, and cut flowers for florist markets. Results of some of the tests using high nitrogen concentrations were reported in the December 1963 issue of *Agricultural Marketing*. Researchers plan further tests before recommending use of modified atmospheres during shipment of fresh produce.

(Detailed results of tests with asparagus will be published in the *Proceedings of the American Society for Horticultural Science*.)



This dark, water-soaked asparagus spear was unmarketable after storage at 37 degrees Fahrenheit for 7 days, followed by 2 days' storage at about 60 degrees Fahrenheit.*

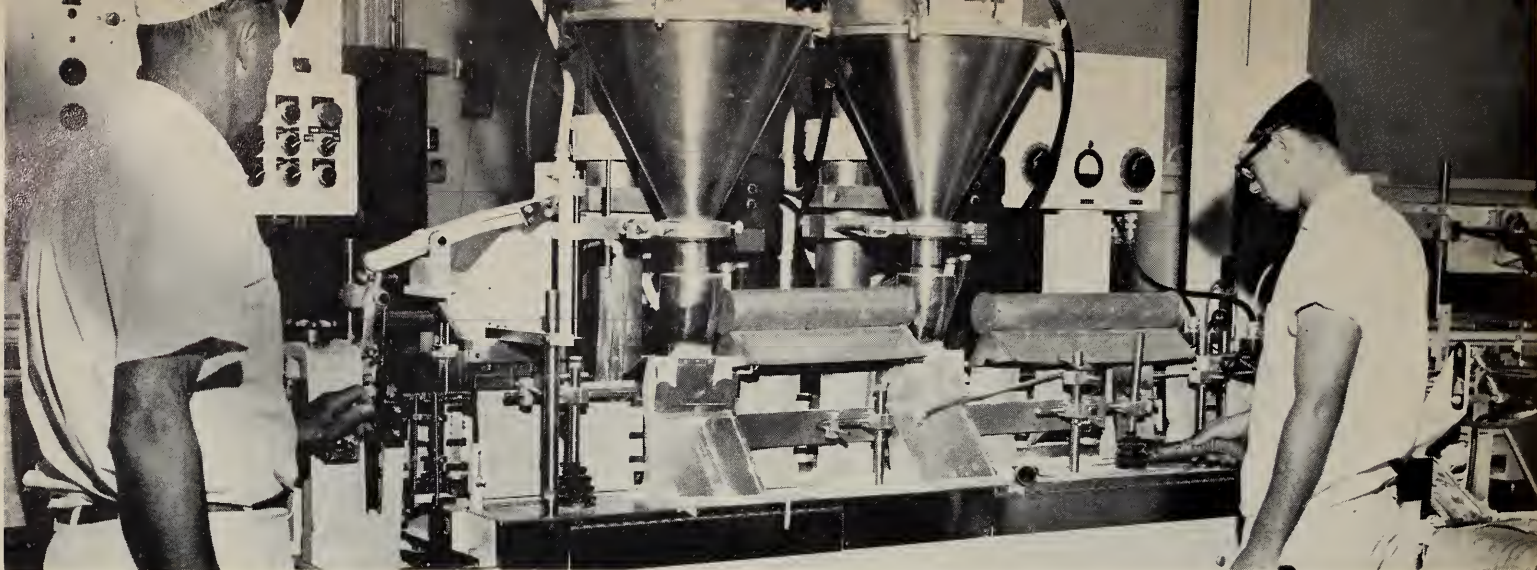


Spears above developed sunken areas and pitted after 7 days in modified atmosphere, and below after 9 days, the approximate time of transit to and storage in retail store.



Spear at right, above, was damaged after 7 days at 43° F. Spear below was damaged after 7 days at 35° F. with no oxygen or carbon dioxide and 2 days in air at 60° F.





Automatic machines, above, package non-fat dry milk into consumer containers at the Osceola creamery. Below, USDA inspector Theodore V. Jambeck draws a sample of milk for laboratory analysis. At right, he runs a solubility index test on the sample.



Quality ... The Road to Quantity

An Example of an AMS

Service to Co-ops

By James A. Lonsbury

IT IS "the heart of our business, the yardstick by which we measure our organization."

A more ardent booster for the Department of Agriculture's dairy grading and quality control service is Don Gregg, manager of the successful Osceola County Creamery of Sibley, Iowa, where it is hard to find.

That this "yardstick" has proved a good measure is proven by the growth of the Osceola creamery, which is virtually a phenomenon of the dairy industry.

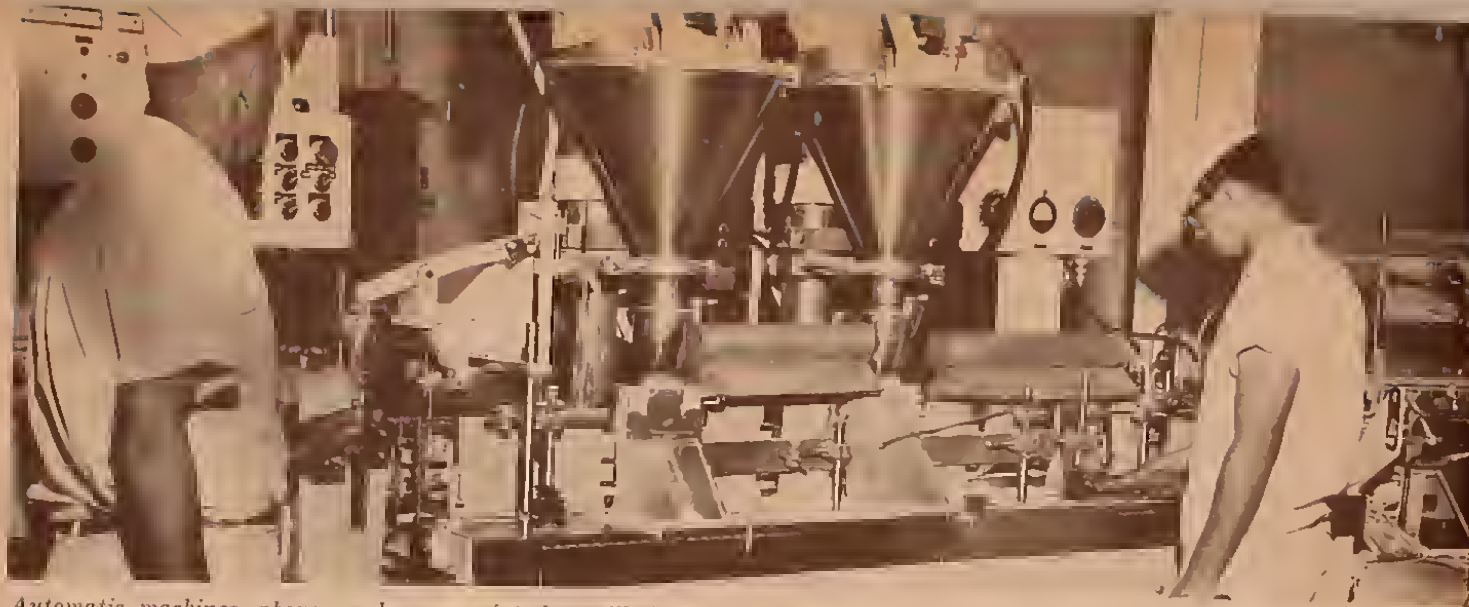
One major sign of this growth is the amount of processing milk handled by the plant. In 1957, after nearly 10 years in business, the creamery was processing a volume of 175,000 pounds of milk a day. In 1963, after only five years of operation under the grading and quality control service, creamery volume had increased to more than a million pounds per year.

The grading and quality control service of USDA's Agricultural Marketing Service is offered to processors of dairy products on a voluntary basis. It consists of maintaining laboratories, salaried resident grader-inspectors, etc., at the plants requesting the service. As a result, the service is self-sustaining at no cost to the taxpayer.

This service of AMS's Dairy Marketing Service assists plants to manufacture dairy products of the highest possible quality.

To manufacture a first-class product . . . to give discriminating consumers the quality they want, strict quality control measures are needed from the time the milk is produced until the products reach market outlets.

The grading and quality control service employs an impartial, scientific system of evaluating the quality of dairy products. Used nationwide, the system is based on establishing



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The grading and quality control service employs an impartial, uniform system of evaluating the quality of dairy products. Used nationwide, this system is based on established, well-

recognized U. S. standards for grades and product quality specifications.

A dairy products manufacturer interested in the grading and quality control service applies to Dairy Division's Inspection and Grading Branch. Inspection and grading specialists then meet with plant management and make an inspection and appraisal of the plant's facilities, equipment, practices of maintaining sanitation, and quality of the raw milk supply.

The plant must have an adequately equipped laboratory, as bacteriological and composition tests are necessary to assure meeting the Dairy Division's high quality and grade standards.

If the plant is approved, a full-time resident dairy products inspector is assigned. His training enables him to offer technical assistance to the plant's management. During the manufacturing process, the inspector evaluates product quality. He also grades products and can issue certificates of product quality, which are necessary in many business transactions.

The inspector is specially trained for this work. In addition to his own technical knowledge he can, if necessary, call on dairy specialists in AMS, including the Dairy Division's laboratory in Chicago, Illinois.

The Osceola County Co-op Creamery started using the grading and quality control service some 5 years ago, according to Mr. Gregg. The desire to produce products of uniform high quality and to obtain quick grading service, so products could be moved into marketing channels earlier—thereby alleviating a shortage of storage space—led to their application to operate under the program.

The creamery has found that the prestige of being equipped with an official USDA laboratory and being

able to offer its products with USDA quality shields and covered by certificates definitely helps make its dairy foods more salable.

Osceola is one of the few milk plants in the area with an expanding Grade A market for its producers. Seven years ago, the creamery had only 10 Grade A producers selling 8,000 pounds of bottling milk. Today, they have several hundred Grade A producers. At present, the creamery sells some 300,000 pounds of Grade A milk per day. It has a top interstate shipper's rating on its plant and producers, and is qualified to sell Grade A milk to various areas covered by Federal milk marketing orders on a producer basis.

The creamery likewise has large outlets for its ice cream mix. Each year it sells millions of pounds of the product to major ice cream manufacturers in the Midwest. These buyers know they can depend on a consistently higher quality mix because it is backed by a USDA grading certificate.

The nonfat dry milk operation accounts for much of the plant activity. The plant now produces some 25 million pounds of nonfat dry milk annually, and in addition, it buy millions of pounds from approved plants in the area. As a result the creamery packaged 60 million pounds last year.

The packaging operation returns thousands of dollars to producers and is helping to assure the future of dairying in the area. The operation also provides employment for 75 people.

For future growth, Mr. Gregg is most optimistic about their instant milk with its "natural flavor." At present, only about 15 percent of the plant's nonfat dry milk production is produced by the low-heat process necessary for this type of instant milk. But, in view of the booming demand for their prod-

uct, Gregg is hopeful that within 5 years, some 60 to 70 percent of their dry milk will be processed by the low-heat method. Eventually, perhaps all of it will.

The special low-heat process used by the Osceola County Co-op Creamery for evaporating milk was developed by creamery technicians there. "Without giving away trade secrets," Gregg said, "it is a method of evaporating which retains more of the natural flavor without denaturing the protein."

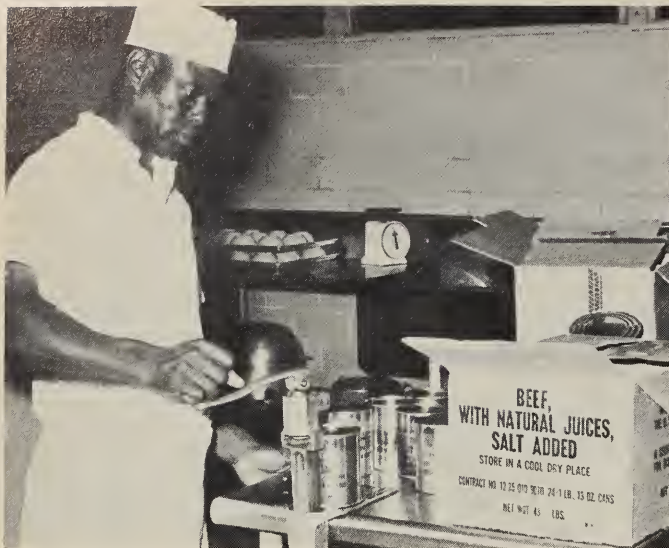
The resulting low-heat, non-fat dried milk powder is then put through the "instantizer," a huge machine which changes the texture of the powder so it will go into solution very rapidly. The result, according to Gregg, is a fresh-flavored skim milk.

Gregg and his organization believe that sales to the American consumer offer the only real solid basis for the industry. However, they appreciate the current need for government dairy price supports and recognize the fact that the government will continue to provide a broad outlet for dairy products through the school lunch program, and direct distribution to the needy at home and abroad.

The grading and quality control service is ideally qualified to assist the Osceola creamery in its drive to put more of the plant's products into the hands of consumers . . . for strict quality control during manufacture means quality dairy products in the dairy case. And an increasing number of food shoppers recognize the USDA grade or "quality-approved" shields on consumer packages as their assurance of finest quality.

(The author is a staff member of the Chicago Area Office of the Marketing Information Division, AMS.)

Feeding Hurricane Hilda Victims



School lunch chef preparing beef for refugees



Refugees huddled in shelter prepare to eat



Three levels of government helping to feed evacuees. From left, Charles H. Herndon, southwest area Food Distribution Division, Dallas; Randall Wright, Louisiana Dept. of Education; Mrs. Lena Mutt, school lunch manager of Baton Rouge Jr. High. Evacuees in food line at right were part of the 100,000 served such dishes as roast beef, chopped meat and cheese.

WHEN Hurricane Hilda struck the Gulf coast last month, she precipitated an exodus to inland shelters unmatched in the history of Louisiana. More than 100,000 evacuees were served USDA-donated foods in 191 storm shelters, mainly in schools with adequate kitchen and dining room facilities for mass feedings.

The Agriculture Marketing Service has given standing authorization to State and local officials to divert foods from the uses for which they were donated (school lunches, donations to needy families and eligible institutions) to disaster victims, such as Hurricane Hilda's.

Alerted in advance, AMS's food distribution staff in the Dallas area office was organized long before Hilda struck the Gulf Coast. They toiled around the clock in shifts, making sure that food was available where needed.

Their partners in this distribution task were school and welfare officials, civil defense staffs, the Salvation Army, the Red Cross, and the U.S. Army.

Meanwhile, State and local school lunch personnel in the shelters were busily preparing emergency meals — hot where practical, sandwich-type otherwise — placing emphasis on high-nutrition foods that could be served quickly with minimum preparation.

As evacuees ate such dishes as roast beef, chopped meat, cheese, peanut butter and other sustaining foods — and were supplied in some cases with "carry-home" foods — AMS officials were rushing in replacement foods for regular post-emergency use.



First Official Grades For Feeder Cattle

By E. F. Kimbrell

THE NATION'S agricultural industry has long used official USDA quality grade standards for agricultural commodities as a basis for trading. Uniform standards—accurately and impartially applied—can help the producer obtain the price to which the quality and value of his product entitle him, and help the buyer obtain the quality and value for which he pays. Grades provide a common, specific language for the buyer and seller when transacting business.

Nearly 40 years ago, the U. S. Department of Agriculture established official U. S. standards for grades of slaughter cattle and carcass beef. These standards, which have been used widely in the livestock and meat industry, have helped to increase the efficiency of the entire marketing process. They are particularly helpful today when so much livestock and meat trading is handled by long-distance telephone. Last year, for instance, more than half of the commercial beef production was traded on the basis of Federal grades, and USDA's Livestock Market News Service reported the buying and selling of millions of head of livestock in terms of official grade standards. However, feeder cattle trading has been reported on the basis of tentative standards.

On August 21, USDA announced the adoption of the first official standards for grades of feeder cattle—the raw material from which slaughter cattle and, ultimately, beef carcasses are produced. The newly adopted standards, developed by the Livestock Division of USDA's Agricultural Marketing Service, establish seven grades of feeder cattle—Prime, Choice, Good, Standard,

Commercial, Utility, and Inferior.

Tentative USDA feeder standards have been used for trading and market reporting since the Livestock Market News Service was established in 1918. The most recent of these tentative standards were published in 1938 and slightly revised in 1942. However, grade terminology between the feeder standards and slaughter cattle and carcass standards was not uniform for each grade. The slaughter cattle and carcass grade standards have undergone several major revisions since 1942 without similar changes in feeder standards.

Under the new official feeder standards, the names for the top six grades of feeders are identical to the names of the top six grades of slaughter cattle and carcass beef, providing uniform grade terminology from raw material to finished product. For example, a feeder animal which qualifies for the Choice grade has the potential for developing into a Choice grade slaughter animal which, in turn, should produce a Choice grade beef carcass.

The Livestock Division based these new standards on a combination of the logical slaughter potential and the thriftiness of feeder cattle as the primary grade factors. Logical slaughter potential, as defined in the standards, is an animal's "slaughter grade at that stage of its development as beef—not as veal or calf—when its carcass quality grade and carcass conformation grade would be equal." Conformation—the shape of the animal—is closely linked with logical slaughter potential. It is the most important single factor affecting the feeder grade. The con-

formation grade of the feeder is determined by appraising the muscular development in relation to skeletal development—that is, the development of meat in comparison to bone.

The degree of fatness of a feeder animal is not a grade factor, but since variations in fatness may influence an animal's appearance, the standards for all seven grades describe animals with a slightly thin fat covering. To accurately evaluate muscling in an animal, one must differentiate between body thickness due to fat and thickness due to muscle.

Thriftiness, the other grade factor on which the new standards are based, measures the animal's ability to gain weight rapidly and efficiently. Thriftiness affects the grade only when the animal is not so thrifty as normally associated with a particular grade. The final grade could be as much as one full grade lower than logical slaughter potential, depending upon the lack of thriftiness and the grade involved.

During development of the standards, members of the Livestock Division tested the new grades on hundreds of animals, comparing carcass grades with previously assigned feeder grades. The comparisons indicated that the assigned feeder grades coincided quite closely with logical slaughter potential. This relationship was illustrated in a study conducted in cooperation with the Southern and Eastern Livestock Grading and Marketing Association. In this study involving approximately 150 feeder steers, about 75 percent of the individual feeder grades assigned were within one-third of a grade of the actual carcass conformation.

Although the standards were adopted only recently, some States have already used them on a trial basis for grading feeder animals in State-sponsored sales. In these sales the standards proved adequate and acceptable to both buyers and sellers.

Although USDA does not maintain an official grading service for feeder cattle, members of the Livestock Division point out that such a service could be provided should industry request it.

Copies of the new feeder cattle standards may be obtained from the Livestock Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C. 20250.

(The author is a marketing specialist in the Standardization Branch, Livestock Division, Agricultural Marketing Service.)

Federal-State Cooperation In New York

Condensed from an address before the Annual Conference of Federal Milk Market Administrators—By Don J. Wickham, Commissioner of the Department of Agriculture and Markets, State of New York.

COOPERATION is a great word in the English language. Webster says it is collective action for mutual profit or common benefit. It is my opinion that this definition pretty well fits the record of Federal and State cooperation in many fields.

We are particularly proud of the record we have compiled in New York State, and for this reason I welcome the opportunity to discuss our participation in the milk marketing order which regulates the New York metropolitan area. This order is unique, and has a long record of success.

The record of cooperation between the U. S. Department of Agriculture and the New York State Department of Agriculture and Markets has been one of effective cooperation for the benefit of farmers and consumers. Thus it is no surprise to find we have long cooperated with the Federal government in the administration of the New York-New Jersey Milk Marketing Order. We firmly believe that Federal-State cooperation is plain good government, permitting more effective action and service designed to help the farmers, marketers and consumers we serve.

We must remember that New York is and has been a great dairy State. It has been consistently second to Wisconsin for more than 50 years in milk production and prior to that it was first. Dairying is the chief agricultural activity of our State. New York is easily the most important State in the marketing of fluid milk. Practically all of the 11 billion pounds of milk is produced for the fluid market. By virtue of having within the confines of the State the

largest single market in the United States, the great bulk of the State's milk is produced for fluid markets within the State.

Consequently, the marketing of fluid milk has been, as our State Milk Control Law declares, "an enterprise of vast economic importance to the State and of vital interest to the consuming public." These circumstances have made the welfare of our dairy farmers a matter of considerable interest to the Legislature for more than a century.

The original Milk Control Law (1933) in New York proved to be ineffective for a number of reasons. I would list first the failure to establish marketwide pooling. Secondly, there was the inability to control the price of milk purchased from out-of-State sources.

In 1937, the Agricultural Marketing Agreement Act was passed. About the same time, the New York Milk Control Law was amended. In many respects, and this is very important for what subsequently happened, the amended State law was similar to the Act passed by Congress.

The new Act provided for the establishment of State milk marketing orders, to be set up in the same way as Federal milk marketing orders, and it provided that the basis for establishing fluid milk prices would be essentially the same as they are under the Act. It provided for the establishment of minimum prices according to use of milk, and for marketwide pooling under State orders.

Most important, it authorized the Commissioner to act jointly with the

Secretary in the establishment of market orders. It is not surprising our law was patterned after the Federal law, because New York State dairy farm leaders were very instrumental in having both laws passed.

I think it should be obvious that you cannot have joint agreements if there is a conflict in the legislative authority of the State and Federal governments. You cannot have joint agreements to carry out different legislative authority or responsibility. It is very important that the price standard as established in the State law is essentially the same as the price supply-demand standard of the Federal Act.

Our State law calls it the production-consumption balance. The Commissioner in our State does not have a legislative directive to establish the price of fluid milk on a *cost of production standard*. This fact is important. Also, the law is so written that its purpose is not solely to help out the dairy farmers of *our* State, but also farmers in other States supplying New York markets. Therefore, there is no problem in the alignment of prices between States.

On August 26, 1938, a "memorandum of the Principles of Cooperation" was signed by the U. S. Secretary of Agriculture and the New York Commissioner of Agriculture. At the time this agreement was signed, conditions in the New York-New Jersey milkshed were truly chaotic and the dairy farmers were in need of help.

This memorandum provided in brief for the following: joint action in the formulation and issuance of orders and amendments; joint or concurrent hearings, and consideration of hearing records; mutual exchange of views; establishment of identical classifications of milk, prices, and other provisions; utilization of the same agency for administration of the concurrent orders under an administrator approved and designated by both; administrative assessments to be paid from assessments under the order; books, records, and accounts of the market administrator to be open for inspection and audit to both Secretary and Commissioner; efforts, both singly and jointly, toward effective enforcement of the order; interstate consultation and cooperation as regards the State where the marketing area is located, and the States from which flow substantial quantities of its milk.

There are also some vital "unwritten principles" which have helped to assure the success of the formal agreement.

I would say that the first of these unwritten principles is for the State to recognize that the main purpose of State cooperation is to assist, not hinder, the effective administration of the Federal order—to strengthen it, as a legal instrument; to assist in its enforcement; to aid in the good public relations of the Milk Marketing Orders Division and the Market Administrator; to act in part as a contact with the producer groups, and to be cognizant of the needed changes in the order and the problems of administration.

I THINK maybe the second of these so-called unwritten principles is to recognize that the main purpose of the Federal milk market order is to aid and assist our dairy farmers in the marketing of their milk. We know decisions with respect to Federal milk orders must be made in accordance with specific authority delegated by Congress. Therefore, the final responsibility for decisions regarding Federal milk orders must rest with the Federal agency. But as I have emphasized, all of this isn't too hard to take because of the similarity of the Federal and State statutes.

It is also recognized that there cannot be confusion with respect to the administration and supervision of the Market Administrator's office. Generally speaking, the director of the Milk Marketing Orders Division has been the clearing house for most contact with the Market Administrator's office.

State cooperation in this respect also has its advantages for administration of the Federal marketing orders. The most obvious advantage deals with enforcement. The Milk Control Law, the Dairy Products Law and the Frozen Dessert Law of our State are all administered through our Division of Milk Control.

This Division also has responsibility for the administration of our two State marketing orders. All the handlers are subject to license, and are licensed by territory and by type of activity at that. Milk plant personnel are licensed by our Division of Milk Control.

The Milk Control Law gives very sweeping powers to the Commissioner, including powers to adopt all rules and orders necessary to carry out the provisions of the Article; the right of entry, inspection and investigation; the right to audit all books and accounts of milk dealers and cooperatives; provides for the keeping of detailed records; and the filing of reports; provides for bonding; and sets forth a long

list of reasons for revocation of license after hearing the opportunity for review. The law also provides penalties if there is failure to comply with either the statute or the regulations.

The Department has its own Legal Bureau and our present counsel has fought many of the notable milk control cases and has some 30 years experience with our Milk Control Law.

In most cases if a handler fails to comply with the terms of the order, the matter is referred to our Division of Milk Control. If the Division fails to secure cooperation with the handler, it schedules a hearing for revocation of his State license. Such action is usually effective, although in a few cases it has been necessary to obtain an injunction to restrain continued operation of a handler lacking a State license.

To expedite enforcement procedures, we refuse to be an agency of appeal from any decision or billing of the Market Administrator, on the basis that he has, in effect, acted as a duly designated agent of the Commissioner in his administration of a State order.

A second advantage involves the bonding of New York dealers who buy milk from producers or cooperatives. Under this phase of our licensing we hold several million dollars in surety bonds and negotiable government bonds. In case of default, claims may be accepted from the Market Administrator for amounts due a producers settlement or equalization fund, and he can share in the bond recovery.

A third advantage is avoiding duplication of certain activities. The Market Administrator in enforcing the State order acts as a duly designated agent of the Commissioner. His actions, therefore, have status and recognition under State law.

In certain activities where the State has an effective program, the Market Administrator, by agreement with the Commissioner, will forego duplication. As an example, our State inspectors carry out an extensive program of checking producer weights and butterfat tests. This involves periodic inspection of every plant in the State where milk is received from producers as well as prompt and thorough investigation of complaints. In recognition thereof, the Market Administrator has not duplicated this work with the work of his own employees.

The fourth advantage is the exchange of information. Since hearings and amendments involve joint Federal-State proceedings, there are frequent

discussions by the Federal people, the State people, and the Market Administrator. This enables us in Albany and Trenton to keep well informed on all problems relating to the marketing of milk under the order. We think many of these conferences have been very productive and helpful.

WE CAN often assist by getting accurate grass roots thinking of the farmers and distributors and relaying it to the Administrator's office and the folks in Washington. With 500 men in the field we just are bound to get a real idea of "the way the wind is blowing."

Sometimes we will champion a local point of view as opposed to the broader Federal concepts of national or regional marketing goals. We hear many of the complaints and wishes of our industry and many of these we pass on to the Milk Marketing Orders Division. In many cases we are able, through our understanding of the Agricultural Marketing Agreement Act and the policies of the Milk Marketing Orders Division, to explain to legislators, to members of the industry and to farm organizations why certain things can or cannot be done.

In conclusion, I am happy to report that in this field of cooperative milk marketing regulation, our New York State Department of Agriculture and Markets and its Division of Milk Control have always enjoyed most cordial relations with the U. S. Department of Agriculture at Washington, its Milk Marketing Orders Division, and the Market Administrator in New York City. I'm sure the same applies to New Jersey. This has been consistently true, even when the administrations at Washington and in the States have been of different political faiths. I may say that both agencies over the years have been interested in promoting professional and competent administration of the milk market order.

The great success of the Federal milk marketing order system and the growth of order territory is a great compliment to its administration. It is ample testimony to the soundness of the policies under which the orders have been administered. The respect with which both the farmers and the industry holds both the marketing order administration and the individual Market Administrators is ample testimony to your professional competence and the thorough honesty and integrity with which all of you administer the marketing orders.

Who's Got a PACA License?

By J. J. Dimond

LICENSE, license, who's got a PACA license? The answer is . . . just about everybody who deals in fresh and frozen fruits and vegetables, except the grower who's selling only his own produce. Shippers, brokers, receivers, trucker buyers . . . even some retailers . . . hold licenses under the Perishable Agricultural Commodities Act, and for a very good reason.

When you've got a shipment of fresh strawberries or lettuce ready for market, you have to move fast. Usually, you sell it over the phone, with written confirmation following later.

Under conditions like these, produce men depend heavily on good faith and clear understanding in their dealings. The Perishable Agricultural Commodities Act . . . PACA, to most of the industry . . . is set up to help assure that good faith and clear understanding. The PACA is a code for fair trading in the produce industry. It prohibits certain unfair practices, defines trade terms and provides the machinery for settling disputes without expensive court procedures. It's administered by the Fruit & Vegetable Division of the U. S. Department of Agriculture's Marketing Service.

Why the licenses? They are the key to enforcement of the law. Just as a driver's license can be suspended or revoked if its holder builds up a dangerous driving record, so a firm's PACA license can be suspended or revoked for violating the PAC Act. If a firm fails to pay for produce, or rejects shipments without cause, renders false accounts on consigned produce or engages in any of the other unfair practices prohibited under PACA, then it poses an economic danger to the majority of the firms, which are dealing honestly and fairly.

The whole idea is to keep competition fair, free, and honest.

Not everyone in the produce industry is subject to PACA licensing, although everyone can take advantage of the law's protection.

Growers, for instance, who are selling *only produce they've raised* themselves do not need a license. If they sell produce for others, they become growers' agents, and must have a license. Growers' cooperatives, ship-

pers, brokers, wholesalers, commission merchants, and processors must all have licenses if they deal in fresh or frozen fruits and vegetables in interstate commerce.

Not all retailers and frozen food brokers are subject to licensing, even if they deal in fruits and vegetables.

Retailers need licenses only if the invoice cost of their purchases of fresh and frozen fruits and vegetables exceed \$90,000 in a calendar year. In computing the invoice costs, *all* purchases of these commodities are counted, without regard to the quantity in the transaction or whether the transaction was in intrastate, interstate or foreign commerce. As a general rule of thumb, any retailer with gross sales of more than \$1,000,000 a year should take a close look at his produce purchases to see if he is subject to PACA licensing.

Frozen food brokers, representing sellers only, are subject to license when they negotiate sales of more than

\$90,000 worth of frozen fruits and vegetables in the course of interstate commerce. Frozen food brokers who represent buyers, and fresh produce brokers are always subject to license.

But whether you need a license or not, you can take advantage of PACA's protection if you deal in fresh or frozen fruits and vegetables. Copies of the Act can be obtained free.

If you feel you've been unfairly dealt with—or if you have a question about your rights or responsibilities under the Act—then call or write your nearest PACA representative. He'll be glad to help you.

Field offices of the Regulatory Branch, Fruit and Vegetable Division, Agricultural Marketing Service, USDA, are located in New York, Chicago, Los Angeles, and Fort Worth. Headquarters are in Washington, D. C.

(The author is Chief of the Regulatory Branch, Fruit and Vegetable Division, AMS.)

With his PACA license on the window, this produce wholesaler conducts business by telephone, knowing the PACA man will help settle any dispute.



The Growing Market For School Lunch Foods

TAKE 445 million pounds of meat, poultry and fish, add 268 million pounds of potatoes and sweet potatoes, use with 944 million pounds of fruits and vegetables, and you're well on the way toward supplying the lunches served in about 66,000 public schools during the 1962-63 school year. Additionally, of course, there were millions of pounds of bakery products, juices, fats and oils, dairy products, eggs, flour and cereal products, used. And all of this was washed down with more than 2.6 billion pounds of fluid milk.

That the Nation's schools provide an increasingly important market for food is evident when this survey by the Economic Research Service of the U. S. Department of Agriculture is compared with the similar study in 1957-58. Foods with a wholesale value of \$929 million moved through the school lunchrooms in the 1962-63 session, compared with \$597 million worth of foods five years earlier.* Of this total, \$720.6 million worth was purchased locally by the schools in 1962-63 with Federal, State and local funds, compared with \$505.1 million worth purchased locally in 1957-58. The remainder, in both years, consisted of foods donated by the Federal Government.

Larger school enrollments and increased availability of school food

services account for the bulk of this 56-percent gain in food value, since wholesale food prices rose only about 6 percent during the 5-year period.

Most of the expansion in food services in elementary and secondary schools, and the resultant growth of the food market, occurred within the framework of the National School Lunch Program administered by USDA's Agricultural Marketing Service. Some 64 percent of the Nation's 112,000 public and nonprofit schools participated in the Federal program in the 1962-63 year, representing 75 percent of U. S. student enrollment up through high school. About 33.1 percent of all school children participated in the National School Lunch Program, and an additional 4.4 percent received some Federally donated foods during the year.

Schools participating in the National School Lunch Program reported higher food consumption per pupil than schools operating a lunch service apart from the Federal program. And, significantly, the greater consumption was most apparent in the food categories that make up the "Type A" lunch pattern required under the national program: milk and dairy products, meat, poultry and fish, fresh fruits and vegetables.

For milk and milk products, as an example, the per capita consumption in National School Lunch Program schools was the equivalent of about 100 pounds of whole milk during the 1962-63 school year, with a wholesale value of \$12.27. Children in nonprogram food service schools consumed the equivalent of 70 pounds each, with a value of \$9.14. In the fresh fruit and



Four-fifths of the food in National School Lunch Program is bought by individual schools from local suppliers. This manager is buying bread.

vegetable group, per capita consumption in schools enrolled in the Federal program amounted to 9.1 pounds with a value of \$1.03; pupils in schools with lunch service outside of the Federal program consumed about 5.8 pounds with a value of 74 cents.

In the group of meat, poultry and fish products, per capita consumption in program schools was about 15.7 pounds, valued at \$6.95; among other schools serving lunch, consumption averaged 14.4 pounds per pupil and had a value of \$6.91.

The greater food consumption under the National School Lunch Program may also be attributed in part to food donations from the U. S. Department of Agriculture, particularly the foods purchased and distributed with funds earmarked for that purpose out of the annual Federal school lunch appropriation. Both program and non-program schools, however, receive so-called "surplus foods" — the commodities acquired by the Government in price-support and surplus-removal operations.

Another factor in the larger use of foods by schools in the Federal program is the money allocated to the States to reimburse schools for a portion of their local food purchases.

* Note: The 1962-63 survey also showed that additional foods valued at \$77 million were used in about 6,500 private schools offering food service. However, since the previous study in 1957-58 did not include nonpublic schools, this preliminary comparative report covers primarily the public school food market. A report on the importance of the private school sector will appear in a future issue.

OFFICIAL BUSINESS

Permanent Food Stamps



AN ACT "to provide for improved levels of nutrition among low-income households through a cooperative Federal-State program of food assistance to be operated through normal channels of trade" took its place beside other U. S. Department of Agriculture action programs designed to benefit all citizens, when the President on August 31 signed the Food Stamp Act of 1964.

The Act makes permanent the techniques, methods and procedures developed by USDA's Agricultural Marketing Service during three years of careful testing of the Food Stamp Plan in rural and urban pilot projects in 22 States, and now permits the gradual expansion of the program during the coming three years to counties and communities requesting it.

Through the years, the Congress has enacted numerous measures reflecting the policy expressed again in the Food Stamp Act, that, "to promote the general welfare, the Nation's abundance of food should be utilized cooperatively by the States, the Federal Government, and local governmental units to the maximum extent practicable to safeguard the health and well-being of the Nation's population and raise levels of nutrition among low-income households."

Out of this policy came the National

School Lunch and Special Milk Programs, Direct Distribution activities for needy families, schools and institutions . . . and, now, the Food Stamp Program. Each of these programs is different from the other in method, but the aim's the same: to improve national dietary levels and expand current and future markets for food.

A variety of tools are employed in the several efforts to bring more food to more people. The Direct Distribution method essentially provides a limited variety of commodities from price-support and surplus-removal stocks uniformly to eligible needy families. The National School Lunch Program employs the direct distribution of foods together with a cash subsidy to be used by schools to help purchase other foods locally, and thus enable participating schools to make low-cost lunches available to all children attending. The Special Milk Program is entirely a cash payment plan with schools and non-profit child-care institutions reimbursed in part for milk bought from local dairies.

The Food Stamp Program brings new dimensions to these techniques. Essentially, it provides individual food subsidies to needy families geared to the degree of need, with all the foods purchased at regular retail stores. Under the Act, all food or food pro-

ducts for human consumption may be purchased with Federal food coupons except alcoholic beverages, tobacco, foods which are identified on the package as imported, and meat and meat products which are imported. Thus, rather than moving a limited and specific group of "surplus" foods, the modern food stamp plan generally increases the consumption of a range of commodities — and research confirms that food stamp coupon users largely select the items that not only provide better nutrition but also require a maximum of America's farm resources to produce.

For agricultural marketers, the fact that food stamp recipients purchase foods of their choice at regular retail outlets is a key element. This country's efficient commercial marketing system has made the neighborhood grocery store — from the smallest independent to the largest chain supermarket — a showcase of America's abundance. That many of the Nation's needy citizens, through their own initiative, will now be able to enjoy a larger share of this abundance marks a giant step forward in implementing the national policy of helping less fortunate people in a manner that "will strengthen our agricultural economy, as well as result in more orderly marketing and distribution of food."